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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/705,268	TANIGUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	K. Feggins	2861	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ The drawings filed on 10 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>10/04/2004</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                 | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The primary reason for allowance of claims 1-2 is the inclusion of the limitations of an ink reservoir of an ink jet recording apparatus that includes an ink discharge amount that is the specified amount by which the ink is discharged is  $V_1$ , a volume of the absorbing member non-arrangement area is  $V_2$ , and a volume of the area in the ink reservoir which stores the ink right after the ink is supplied is  $V_3$ , then the volumes  $V_1$ ,  $V_2$ , and  $V_3$  fall within ranges of  $V_3 \leq 20V_1$  and  $0.7V_1 \leq V_2 \leq V_1$ . It is these limitations found in the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claims 3-4 is the inclusion of the limitations of an ink jet head structure that includes an ink discharge amount that is the specified amount by which the ink is discharged is  $V_1$ , a volume of the absorbing member non-arrangement area is  $V_2$ , and a volume of the area in the ink reservoir which stores the ink right after the ink is supplied is  $V_3$ , then the volumes  $V_1$ ,  $V_2$ , and  $V_3$  fall within ranges of  $V_3 \leq 20V_1$  and  $0.7V_1 \leq V_2 \leq V_1$ . It is these limitations found in the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for allowance of claim 5 is the inclusion of the limitations of an ink jet recording apparatus that includes an ink discharge amount that is the specified amount by which the ink is discharged is  $V_1$ , a volume of the absorbing

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member non-arrangement area is  $V_2$ , and a volume of the area in the ink reservoir which stores the ink right after the ink is supplied is  $V_3$ , then the volumes  $V_1$ ,  $V_2$ , and  $V_3$  fall within ranges of  $V_3 \leq 20V_1$  and  $0.7V_1 \leq V_2 \leq V_1$ . It is these limitations found in the claims, as they are claimed in the combination of that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thomas (US 4,433,341) disclose an ink level control for an ink printer that includes a reciprocating reservoir that is automatically controlled for both printing and non-printing conditions. Ebinuma et al. (US 4,680,696) discloses an ink jet recorder with improved system for transporting ink to or from recording heads. Dietl et al. (US 5,159,348) discloses an ink jet printing apparatus that ensures that the reservoir is filled with ink during the printing operation. Ouchida et al. (US 5,936,650) disclose an ink delivery system for ink jet pens having an internal reservoir divided into capillary material filled volume and a free standpipe volume. Pew et al. (US 6,293,665 B1) discloses a dual capillarity ink accumulator for an ink jet where a high capillarity member and a low capillarity member of the accumulator respond to changes in volume of a gas bubble within the pen to absorb or expel ink when operational and ambient atmospheric pressure changes occur.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Communication With The USPTO**

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talbott Dave can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**K. FEGGINS**  
**PRIMARY EXAMINER**